INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

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P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

September 18, 2003

TO: Interested Parties / Applicant

RE: Topp Industries, Inc. / 049-17294-00018

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER-AM.dot 9/16/03

September 18, 2003

Mr. Kevin Birchmeier
Topp Industries, Inc.
P.O. Box 420
Rochester, IN 46975

Re: **049-17294-00018**
Second Administrative Amendment to
Part 70 Permit No.: 049-9015-00018

Dear Mr. Kevin Birchmeier:

Topp Industries, Inc. was issued a permit on May 31, 2001 for a stationary fiberglass reinforced plastics tank and related sewer parts manufacturing operation. A letter requesting a change was received on May 15, 2003. Pursuant to the provisions of 2-7-11 the permit is hereby administratively amended as follows.

Topp Industries, Inc. has submitted an application to install and operate an additional winding unit in the winding room, increase the production rate of the winding room from 120.36 units/hour to 180.54 units/hr, decrease the combined production rate of the resin chop spray booths from 180.54 units/hr to 120.36 units/hr, and combine the resin chop spray and winding room processes into one resin application area.

Topp Industries has proposed installing and operating a winding unit to accommodate a spray gun that was permitted under the original Part 70 permit. The proposed winding unit does not generate any emissions.

Topp Industries has also proposed increasing the production rate of the winding room from 120.36 units/hour to 180.54 units/hr and decreasing the combined production rate of the resin chop spray booths from 180.54 units/hr to 120.36 units/hr.

Since the winding room and resin chop spray processes are part of the reinforced plastic tank production operation, the combined VOC emissions from the reinforced plastic tank production process are limited to less than 99 tons per year, both processes apply the same type of resin using the same type of application units, and the emissions generated by each winding room unit is the same as the emissions generated by each resin chop booth unit, it is determined that the source can increase production at one of these two processes and decrease production at the other on a unit per unit basis without generating an increase in the potential to emit.

The proposed changes will not generate an increase in production or emissions from any existing emission units, does not require any changes to any existing conditions, and does not trigger any new applicable requirements.

In addition, on July 28, 2003, Topp Industries submitted an additional request to combine the resin chop spray and winding room processes into one resin application area to reflect the flexibility allowed in the permit.

Since the resin chop spray and winding room processes are both resin application processes that apply the same type of resin using the same type of application units, and the emissions from these two processes are part of an overall 99 tons/yr limit, it is determined that combining the two processes into one resin application process better reflects the flexibility that is allowed under the permit without relaxing any existing permit requirements or limits.

Therefore, latter proposed changes shall be made as well.

Said changes shall be incorporated into the existing Part 70 Permit via an Administrative Amendment pursuant to 326 IAC 2-7-11(a)(7) which states that any changes to an existing Part 70 permit which revise information where the revision will not trigger a new applicable requirement or violate a permit term, may be incorporated into the existing Part 70 permit via an Administrative Amendment.

To incorporate the proposed changes into the permit, the following changes shall be made. All added information is indicated in bold type. All deleted information is struck-out.

1. Condition A.2:

Condition A.2 shall be amended as follows to reflect the addition of the winding unit and the description changes.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) one (1) fiberglass reinforced plastic (FRP) tank production process (ID No. EU-01), consisting of the following: .....

(2) **one (1) resin application area consisting of five (5) non-atomized spray application units, each coating a maximum of 60.18 plastic tank mold units per hour, for a total maximum of 300.9 plastic tank mold units per hour. The spray application units are located in:**

(A) two (2) spray booths constructed in 1992, with dry filters for particulate matter (PM) overspray control, exhausting at two (2) stacks (ID Nos. V2 and V3), and

(B) one (1) winding room constructed in 1992, with dry filters for particulate matter (PM) overspray control, exhausting at two (2) stacks (ID Nos. V4 and V5). ~~two (2) resin chop spray booths, each constructed in 1992, each utilizing an atomized spray layup application system, coating a total maximum of 180.54 plastic tank mold units per hour, with dry filters for particulate matter overspray control, and exhausting at two stacks (ID Nos. V2 and V3, respectively);~~

~~(3) one (1) winding room, constructed in 1992, which contains two (2) fiberglass winding units with two (2) mandrels each, using a combination of atomized spray layup and filament winding where the filaments are sprayed with resin as they are wound onto the mandrel. Only one mandrel can be operated at a time per winding unit. A maximum of 120.36 plastic tank mold units are coated per hour. Venting occurs at the base of each mandrel, with dry filters for particulate matter overspray control, exhausting through two (2) stacks (ID Nos. V4 and V5);~~ .....

2. Unit Description of Section D.1:

The unit description of Section D.1 shall be amended as follows to reflect the addition of the winding unit and the description changes.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:
(a) one (1) fiberglass reinforced plastic (FRP) tank production process (ID No. EU-01), consisting of the following: .....

(2) **one (1) resin application area consisting of five (5) non-atomized spray application units, each coating a maximum of 60.18 plastic tank mold units per hour, for a total maximum of 300.9 plastic tank mold units per hour. The spray application units are located in:**

(A) two (2) spray booths constructed in 1992, with dry filters for particulate matter (PM) overspray control, exhausting at two (2) stacks (ID Nos. V2 and V3), and

(B) one (1) winding room constructed in 1992, with dry filters for particulate matter (PM) overspray control, exhausting at two (2) stacks (ID Nos. V4 and V5). ~~two (2) resin chop spray booths, each constructed in 1992, each utilizing an atomized spray layup application system, coating a total maximum of 180.54 plastic tank mold units per hour, with dry filters for particulate matter overspray control, and exhausting at two stacks (ID Nos. V2 and V3, respectively);~~

~~(3) one (1) winding room, constructed in 1992, which contains two (2) fiberglass winding units with two (2) mandrels each, using a combination of atomized spray layup and filament winding where the filaments are sprayed with resin as they are wound onto the mandrel. Only one mandrel can be operated at a time per winding unit. A maximum of 120.36 plastic tank mold units are coated per hour. Venting occurs at the base of each mandrel, with dry filters for particulate matter overspray control, exhausting through two (2) stacks (ID Nos. V4 and V5);~~ .....

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

3. Condition D.1.1:

Condition D.1.1 shall be amended as follows to include the new winding unit and reflect the changes to the unit descriptions.

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]
Pursuant to the BACT determination under 326 IAC 8-1-6, operating conditions for the FRP tank production process including the gel coat spray booth~~, the two (2) resin chop spray booths,~~ and the ~~two (2) winding units~~ **resin application area** shall be the following:

4. Condition D.1.3:

Condition D.1.3 shall be amended as follows to include the new winding unit and reflect the changes to the unit descriptions.

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2, the PM from the gel coat spray booth, the ~~two (2) resin chop spray booths, the two (2) winding units,~~ **resin application area,** and the paint spray booth in the paint room**,** shall not exceed the pound per hour emission rate established as E in the following formula: .....

5. Condition D.1.7:

Condition D.1.7 shall be amended as follows to include the new winding unit and reflect the changes to the unit descriptions.

D.1.7 Particulate Matter (PM)

The dry filters for PM control shall be in operation at all times when the gel coat spray booth, ~~the two (2) resin chop spray booths, the two (2) winding units,~~ **the equipment of the resin application area,** and the paint spray booth are in operation.

6. Condition D.1.10:

Condition D.1.10 shall be amended as follows to include the new winding unit.

D.1.10 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (8) below. Records maintained for (1) through (8) shall be taken daily or monthly as indicated and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.1.1 and D.1.2.

(1) Monthly usage by weight, monomer content, method of application, and other emission reduction techniques for each gel coat and resin used in the gel coat spray booth~~, the two (2) resin chop spray booths, and the two (2) winding units.~~ **and resin application area.** The amount and VOC content of each solvent used shall also be recorded. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. .....

(8) The weight of VOCs emitted for each compliance period.

(A) VOC emissions from the gel coat spray booth~~,~~ **and** the ~~two (2) resin chop spray booths, and the two (2) winding units~~ **resin application area** shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the monomer content, method of application, and other emission reduction techniques for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAQ.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Scott Fulton at (317) 233-5691 or phone (800) 451-6027 and ask for Scott Fulton or extension (3-5691).

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
SDF
cc: File - Fulton County
U.S. EPA, Region V
Fulton County Health Department
Air Compliance Section Inspector - Rick Reynolds
Northern Regional Office
Compliance Data Section - Karen Nowak
Administrative and Development
Technical Support and Modeling - Michele Boner

PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Topp Industries, Inc.
Highway 25 North
Rochester, Indiana 46975

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T049-9015-00018	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: May 31, 2001 Expiration Date: May 31, 2006

First Administrative Amendment No.: 049-14806-00018	Date issued: September 19, 2001

Second Administrative Amendment No.: 049-17294-00018	Affected Pages: 4, 5, 26, 27, 28, 29, 30, 31, 32
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issued: September 18, 2003

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary fiberglass reinforced plastics tank and related sewer parts manufacturing operation.

Responsible Official:	Kevin Birchmeier
Source Address:	Highway 25 North, Rochester, Indiana 46975
Mailing Address:	P.O. Box 420, Rochester, Indiana 46975
SIC Code:	3089
County Location:	Fulton
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) one (1) fiberglass reinforced plastic (FRP) tank production process (ID No. EU-01), consisting of the following:

(1) one (1) gel coat spray booth, constructed in 1992, utilizing a spray layup application system, coating a maximum of 300.9 plastic tank mold units per hour, with dry filters for particulate matter overspray control, and exhausting through one (1) stack (ID Nos. V1). This booth also serves as a cutting and grinding booth, trimming a maximum of 5.4 FRP tanks per hour;

(2) one (1) resin application area consisting of five (5) non-atomized spray application units, each coating a maximum of 60.18 plastic tank mold units per hour, for a total maximum of 300.9 plastic tank mold units per hour. The spray application units are located in:

(A) two (2) spray booths constructed in 1992, with dry filters for particulate matter (PM) overspray control, exhausting at two (2) stacks (ID Nos. V2 and V3), and

(B) one (1) winding room constructed in 1992, with dry filters for particulate matter (PM) overspray control, exhausting at two (2) stacks (ID Nos. V4 and V5).

(b) one (1) paint room, (ID No. EU-02), exhausting through one (1) stack (ID No. V6), containing the following:

(1) one (1) paint spray booth, constructed in 1992, utilizing a low pressure air atomization spray application system, coating a maximum of 13.0 metal parts per hour, with dry filters for particulate matter overspray control;

(2) one (1) dip tank, coating a maximum of 13.0 metal parts per hour (this unit is an insignificant activity); and

(3) one (1) manual coating application operation, coating a maximum of 4.0 metal parts per hour (this unit is an insignificant activity).

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations. This is a small grinder located in the same booth as the larger cutting and grinding operation with a maximum throughput of 5.4 FRP tanks per hour. [326 IAC 6-3]

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) one (1) fiberglass reinforced plastic (FRP) tank production process (ID No. EU-01), consisting of the following:

(1) one (1) gel coat spray booth, constructed in 1992, utilizing a spray layup application system, coating a maximum of 300.9 plastic tank mold units per hour, with dry filters for particulate matter overspray control, and exhausting through one (1) stack (ID Nos. V1). This booth also serves as a cutting and grinding booth, trimming a maximum of 5.4 FRP tanks per hour;
(2) one (1) resin application area consisting of five (5) non-atomized spray application units, each coating a maximum of 60.18 plastic tank mold units per hour, for a total maximum of 300.9 plastic tank mold units per hour. The spray application units are located in:

(A) two (2) spray booths constructed in 1992, with dry filters for particulate matter (PM) overspray control, exhausting at two (2) stacks (ID Nos. V2 and V3), and

(B) one (1) winding room constructed in 1992, with dry filters for particulate matter (PM) overspray control, exhausting at two (2) stacks (ID Nos. V4 and V5).

(b) one (1) paint room, (ID No. EU-02), exhausting through one (1) stack (ID No. V6), containing the following:
(1) one (1) paint spray booth, constructed in 1992, utilizing a low pressure air atomization spray application system, coating a maximum of 13.0 metal parts per hour, with dry filters for particulate matter overspray control;
(2) one (1) dip tank, coating a maximum of 13.0 metal parts per hour (this unit is an insignificant activity); and
(3) one (1) manual coating application operation, coating a maximum of 4.0 metal parts per hour (this unit is an insignificant activity).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Pursuant to the BACT determination under 326 IAC 8-1-6, operating conditions for the FRP tank production process including the gel coat spray booth and the resin application area shall be the following:

(a) Use of resins, gel coats and clean-up solvents, as well as VOC delivered to the applicators shall be limited such that the potential to emit (PTE) VOC from resin and gel coat applications shall be limited to 99 tons per twelve (12) consecutive months.

(1) Potential VOC emissions from the use of resins, gel coats and clean-up solvents, as well as VOC delivered to the applicators in the FRP tank production process are less than 99 tons per year. Any change or modification that would increase the potential VOC emissions from the FRP tank production process to greater than 99 tons per year shall require approval from the Office of Air Quality (OAQ), as required by 326 IAC 2-1.1, before such change can occur.

(b) Resins used, including filled resins and tooling resins, shall be limited to maximum monomer contents of 35 percent (35%) by weight for resins or their equivalent on an emissions mass basis. Also, gel coats used shall be limited to maximum monomer contents of 37 percent (37%) by weight for gel coats or their equivalent on an emissions mass basis. If all of the resins and/or gel coats used during a month meet the monomer content without exceeding the values specified, then maintaining records as specified under condition D.1.10 is sufficient for demonstrating compliance. Monomer contents shall be calculated on a neat basis, i.e., excluding any filler.

If non-compliant resins or gel coats are used, then compliance shall be demonstrated on a monthly basis by calculating the monomer content on a neat basis.

The use of resins with monomer contents lower than 35%, the use of gel coats with monomer contents lower than 37%, and/or additional emission reduction techniques approved by IDEM, OAQ, may be used to offset the use of resins and gel coats with monomer contents higher than 35% and 37%, respectively. Examples of other techniques include, but are not limited to, lower monomer content resins and gel coats, closed molding, vapor suppression, vacuum bagging, controlled spraying, or installing a control device with an overall reduction efficiency of 95%. This is allowed to meet the monomer content limits for resins and gel coats, and shall be calculated on an equivalent emissions mass basis as shown below:

(Emissions from >35% resin or >37% gel coat) - (Emissions from 35% resin or 37% gel coat) $\leq$ (Emissions from 35% resin or 37% gel coat) - (Emissions from <35% resin or <37% gel coat, and or other emission reduction techniques).

Where: Emissions, lb or ton = M (mass of resin or gel coat used, lb or ton) * EF (Monomer emission factor for resin or gel cat used, %):

EF, Monomer emission factor = emission factor, expressed as % styrene emitted per weight of resin applied, which is indicated by the monomer content, method of application, and other emission reduction techniques for each gel coat and resin used.

(c) Non-atomized spray application technology shall be used to apply unfilled production resins. Non-atomized spray application technology includes flow coaters, flow choppers, impingement guns, pressure-feed rollers, or other non-spray applications of a design and specifications approved by IDEM, OAQ.

If, after 1 year of operation it is not possible to apply a portion of neat resins with flow coaters or impingement guns, equivalent emissions reductions must be obtained via use of other techniques, such as those listed in paragraph (b) above, elsewhere in the process.

(d) Optimized spray techniques according to a manner approved by IDEM shall be used for gel coats and filled resins (where fillers are required for corrosion or fire retardant purposes) at all times. Optimized spray techniques include, but are not limited to, the use of airless, air-assisted airless, high volume low pressure (HVLP), or other spray applicators demonstrated to the satisfaction of IDEM, OAQ, to be equivalent to the spray applicators listed above.

HVLP spray is the technology used to apply material to substrate by means of coating application equipment that operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

(e) The listed work practices shall be followed:

(1) To the extent possible, a non-VOC, non-HAP solvent shall be used for cleanup.

(2) Cleanup solvent containers used to transport solvent from drums to work stations shall be closed containers having soft gasketed spring-loaded closures.

(3) Cleanup rags saturated with solvent shall be stored, transported, and disposed of in containers that are closed tightly.

(4) The spray guns used shall be the type that can be cleaned without the need for spraying the solvent into the air.

(5) All solvent sprayed during cleanup or resin changes shall be directed into containers, such containers shall be closed as soon as solvent spraying is complete and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

(6) Storage containers used to store VOC- and/or HAP- containing materials shall be kept covered when not in use.

D.1.2 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the paint spray booth in the paint room shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2, the PM from the gel coat spray booth, the resin application area, and the paint spray booth in the paint room, shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

(b) The particulate matter (PM) from the cutting and grinding operation shall not exceed 1.15 pounds per hour when operating at a process weight rate of 300 pounds per hour based on the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Determination Requirements

D.1.5 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Condition D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.6 VOC Emissions

Compliance with Condition D.1.1 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the most recent twelve (12) month period for any month that non-compliant resins and gel coats are used. Otherwise compliance shall be based on record keeping as required in Condition D.1.10.

D.1.7 Particulate Matter (PM)

The dry filters for PM control shall be in operation at all times when the gel coat spray booth, the equipment of the resin application area, and the paint spray booth are in operation.

D.1.8 Volatile Organic Compounds (VOC)

(a) Use of resins, gel coats and clean-up solvents, as well as VOC delivered to the applicators shall be limited such that the potential to emit (PTE) VOC from resin and gel coat applications shall be limited to 99 tons per twelve (12) consecutive months. Compliance with this limit shall be determined based upon the following criteria:

(1) Monthly usage by weight, monomer content, method of application, and other emission reduction techniques for each gel coat and resin shall be recorded. VOC emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the monomer content, method of application, and other emission reduction techniques for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAQ.

(2) Until such time that new emissions information is made available by U.S. EPA in its AP-42 document or other U.S. EPA- approved form, emission factors shall be taken from the following reference approved by IDEM, OAQ: "CFA Emission Models for the Reinforced Plastics Industries," Composites Fabricators Association, February 28, 1998, or its update, and shall not exceed 32.3% styrene emitted per weight of gel coal applied and 17.7% styrene emitted per weight of resin applied. For the purposes of these emission calculations, monomer in resins and gel coats that is not styrene shall be considered as styrene on an equivalent weight basis.

(b) Resins used, including filled resins and tooling resins, shall be limited to maximum monomer contents of 35 percent (35%) by weight for resins or their equivalent on an emissions mass basis. Also, gel coats used shall be limited to maximum monomer contents of 37 percent (37%) by weight for gel coats or their equivalent on an emissions mass basis. If all of the resins and/or gel coats used during a month meet the monomer content without exceeding the values specified, then maintaining records as specified under condition D.1.10 is sufficient for demonstrating compliance. Monomer contents shall be calculated on a neat basis, i.e., excluding any filler.

Note: Compliance with the monomer content limits automatically ensures that potential VOC emissions from the fiberglass production operations at this source are less than 99 tons per year. Therefore, an additional VOC emission limit of 99 tons per year is not necessary. The source will demonstrate that VOC emissions are below 99 tons per year through record keeping.

If non-compliant resins or gel coats are used, then compliance shall be demonstrated on a monthly basis by calculating the monomer content on a neat basis.

The use of resins with monomer contents lower than 35%, the use of gel coats with monomer contents lower than 37%, and/or additional emission reduction techniques approved by IDEM, OAQ, may be used to offset the use of resins and gel coats with monomer contents higher than 35% and 37%, respectively. Examples of other techniques include, but are not limited to, lower monomer content resins and gel coats, closed molding, vapor suppression, vacuum bagging, controlled spraying, or installing a control device with an overall reduction efficiency of 95%. This is allowed to meet the monomer content limits for resins and gel coats, and shall be calculated on an equivalent emissions mass basis as shown below:

(Emissions from >35% resin or >37% gel coat) - (Emissions from 35% resin or 37% gel coat) $\leq$ (Emissions from 35% resin or 37% gel coat) - (Emissions from <35% resin or <37% gel coat, and or other emission reduction techniques).

Where: Emissions, lb or ton = M (mass of resin or gel coat used, lb or ton) * EF (Monomer emission factor for resin or gel cat used, %):

EF, Monomer emission factor = emission factor, expressed as % styrene emitted per weight of resin applied, which is indicated by the monomer content, method of application, and other emission reduction techniques for each gel coat and resin used.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.9 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the gel coat spray booth, the two (2) resin chop spray booths, the winding room, and the paint spray booth stacks (V1, V2, V3, V4, V5, and V6) while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.10 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (8) below. Records maintained for (1) through (8) shall be taken daily or monthly as indicated and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.1.1 and D.1.2.

(1) Monthly usage by weight, monomer content, method of application, and other emission reduction techniques for each gel coat and resin used in the gel coat spray booth and resin application area. The amount and VOC content of each solvent used shall also be recorded. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(2) The amount and VOC content of each coating material and solvent used in the paint spray booth. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(3) A log of the dates of use in each booth;

(4) The volume weighted VOC content of the coatings used in the paint spray booth for each day that coatings with a VOC content greater then 3.5 pounds per gallon are used;

(5) The cleanup solvent usage for each month;

(6) The total VOC usage for each month;

(7) The monomer content of resins and gel coats shall be calculated on a neat basis, i.e., excluding any filler, for each month in which noncompliant resins and gel coats are used; and

(8) The weight of VOCs emitted for each compliance period.

(A) VOC emissions from the gel coat spray booth and the resin application area shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the monomer content, method of application, and other emission reduction techniques for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAQ.

(B) Until such time that new emissions information is made available by U.S. EPA in its AP-42 document or other U.S. EPA approved form, emission factors shall be taken from the following reference approved by IDEM, OAQ: "CFA Emission Models for the Reinforced Plastics Industries," Composites Fabricators Association, February 28, 1998, or its update, and shall not exceed 32.3% styrene emitted per weight of gel coat applied and 17.7% styrene emitted per weight of resin applied. For the purposes of these emission calculations, monomer in resins and gel coats that is not styrene shall be considered as styrene on an equivalent weight basis.

(C) Calculations of VOC emissions shall be performed annually for the annual emission inventory required in Condition C.16. Monthly purchase orders, invoices and material safety data sheets (MSDS) shall be sufficient to allow calculation of monthly VOC emissions from the FRP process.

(b) To document compliance with Condition D.1.9, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.